

CLAIMS

What is claimed is:

1. Apparatus for providing a liquid-tight seal, including: a container having an upper edge defining an opening; and an injection-molded lid configured to cover said opening, said lid having a channel at its periphery, said channel configured to abut and form a liquid-tight seal with said upper edge of said container when said lid is assembled on said container.
2. The apparatus of Claim 1, in which said container upper edge is tapered from a relatively thinner dimension to a relatively thicker dimension moving in from said upper edge toward a bottom portion of said container, and said channel includes a corresponding tapered section, said tapering relationship providing contacting and sealing engagement between said lid and said container on both an inner contact surface and an outer contact surface of said upper edge.
3. The apparatus of Claim 2, in which said channel also sealingly contacts a transition surface on said container upper edge between said inner contact surface and said outer contact surface, when said lid and said container are assembled with each other.
4. The apparatus of Claim 2 or Claim 3, in which said channel on said lid is formed by an inner skirt and an outer skirt, both of which are generally downwardly directed, and said outer skirt includes a lower portion spaced outwardly from said container upper edge to facilitate engagement of said lid on said container.

5. The apparatus of Claim 2 or Claim 3, including cooperating engagement detents on said lid and said container to hold said lid and said container in said liquid-tight sealing relationship.

6. The apparatus of Claim 1, including corresponding tongue and groove members on said lid and said container to interfit with each other within said channel, said tongue and groove members providing said structure to abut and form a liquid-tight seal with said upper edge of said container.

7. The apparatus of Claim 6, in which said upper edge includes a generally horizontal surface when said container opening faces upwards, and said generally horizontal surface extends generally about the periphery of said container, and said tongue and groove members include a groove formed in said horizontal surface, said lid channel including a corresponding generally horizontal surface that confronts said generally horizontal surface of said container edge, and said tongue and groove members further include a tongue element formed on said generally horizontal surface of said lid channel, said tongue element on said lid channel sized and configured to seat within said groove in said container upper edge in a liquid sealing manner when said lid and container are engaged.

8. The apparatus of Claim 6 or Claim 7, in which said tongue member is slightly larger than said groove member.

9. The apparatus of Claim 6 or Claim 7, in which said tongue member is misaligned horizontally with respect to said groove member.

10. The apparatus of Claim 6 or Claim 7, in which at least a portion of said tongue member has a cross-section that is sloped inwardly.

11. The apparatus of Claim 6 or Claim 7, in which at least a portion of said tongue member has a cross-section that is sloped outwardly.

5 12. The apparatus of Claim 6 or Claim 7, in which at least a portion of said tongue member has a cross-section that is sloped, said tongue member is slightly larger than said groove member, and said tongue member is misaligned horizontally with respect to said groove member.

13. The apparatus of Claim 6 or Claim 7, including cooperating engagement
10 detents on said lid and said container to hold said lid and said container in said liquid-tight sealing relationship.

14. A container lid having a tapered channel at its periphery, said channel configured to abut and form a liquid-tight seal with an upper edge of a corresponding container when said lid is assembled on the container, said tapering providing contacting
15 and sealing engagement between said lid and the container on both an inner contact surface and an outer contact surface of said channel.

15. The lid of Claim 14, including engagement detents on said lid to engage corresponding detents on the container, to hold said lid in said liquid-tight sealing relationship on the container.

20 16. A lid having a generally U-shaped cross section, both legs of said cross section configured to abut a corresponding container to thereby form a liquid-tight seal with the container.

17. The lid of Claim 16, including inwardly directed engagement detents on the outermost of said legs to engage corresponding detents on the container, to hold said lid in said liquid-tight sealing relationship on the container.

18. Apparatus for providing a liquid-tight seal, including: a container having
5 an upper edge defining an opening; said upper edge constituting in cross section a generally vertical wedge member, said wedge member tapering in cross section from an uppermost point region of said upper edge to a wider region spaced away from said uppermost portion; and a lid configured to cover said opening, said lid having a correspondingly-shaped wedge receiving channel at its periphery, said correspondence
10 between said wedge member and said channel forming a liquid-tight seal therebetween when said lid is assembled on said container, with substantially no deformation of said wedge receiving channel required for said assembly of said lid and container, said wedge member and said channel including an inner contact and an outer contact surface between said lid and said container, said inner contact surface extending toward the bottom of the
15 container as least as far as said outer contact surface.